

Please replace the paragraph beginning at line 26 of page 2 as shown.

the processor being operable to execute the program representing the modelling tool to generate from the input file a register definition file by allocating specific elements of the input data structure to predefined sectors of a register definition table; and

Please replace the paragraph beginning at line 32 of page 6 and continuing through line 14 of page 7 as shown.

An application specific processor is modelled as a central processor (CPU) 2 and a set of peripherals 4. The CPU 2 is modelled with the basic elements of an interrupt handler 6 and memory 8. A set of applications running on the CPU are denoted by the process circle 10 labelled APPLS. Each peripheral 4 is modelled with an internal interface 12 between the peripherals and the CPU 2 and an external interface 14 between the peripheral and the "outside world", that is external of the ASP. At the time of modelling the ASP, it is not known whether or not the peripherals will in fact be implemented in software, hardware or some combination of both. However, whether finally implemented in software or hardware or some combination of both, the peripherals 4 represent how the central processor 2 cooperates with the external environment. The external interfaces 14 receive stimuli S from the external environment and generate responses R in response to the stimuli. These are carried by the external interface 14. The internal interfaces 12 carry state information and data between the peripherals and the applications 10 running on the CPU 2. This is described in more detail with reference to Figure 2.

Please replace the paragraph beginning at line 16 of page 8 as shown.

An input file is created for each peripheral 4 in a high level language such as C using an input data structure compatible with that language. That input file defines the interface behaviour of the peripheral 4 with respect to the CPU. The architect determines the responses R of the peripheral with respect to external stimuli S. A modelling tool 24 generates automatically from the data structure defined in the input file 22 a documentation file 26, an interface functions file 28, and a test functions file 30.

Please replace the paragraph beginning at line 24 of page 9 as shown.